

0202 030
RAW SEQUENCE LISTING
PATENT APPLICATION US/09/003,574OIPE #4
DATE: 02/20/98
TIME: 09:40:38

INPUT SET: S23591.raw

**This Raw Listing contains the General
Information Section and up to the first 5 pages.**

SEQUENCE LISTING

ENTERED

(1) General Information:

(i) APPLICANT: Tripp, Cynthia Ann
Frank, Glenn R.
Grieve, Robert B.

(ii) TITLE OF INVENTION: NOVEL PARASITE ASTACIN
METALLOENDOPEPTIDASE PROTEINS

(iii) NUMBER OF SEQUENCES: 36

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: SHERIDAN ROSS P.C.
(B) STREET: 1700 LINCOLN ST., SUITE 3500
(C) CITY: DENVER
(D) STATE: CO
(E) COUNTRY: USA
(F) ZIP: 80203

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER:
(B) FILING DATE:
(C) CLASSIFICATION:

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Connell, Gary J.
(B) REGISTRATION NUMBER: 32,020
(C) REFERENCE/DOCKET NUMBER: 2618-21-1-C1

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (303) 863-9700
(B) TELEFAX: (303) 863-0223

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1299 base pairs

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/003,574DATE: 02/20/98
TIME: 09:40:42

INPUT SET: S23591.raw

47 (B) TYPE: nucleic acid
48 (C) STRANDEDNESS: single
49 (D) TOPOLOGY: linear
50

51 (ii) MOLECULE TYPE: cDNA
52
53
54

55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
56

57	TTTTTTTTTTT TTTTTTTTGT TTCATTGTTC AGTCAGTGGA AAATTATCGA ACGCAGAAAAG	60
58		
59	CATCACGAAA TACGTTAGAT CACATCAAAC AACTTATCAC CTTGAACGTA CAAAGAGAGA	120
60		
61	TTGGAAACAT AGATGATAAG ACATTAGCTG ATGAAATAGT ATTACAACGA CGGGATCCTG	180
62		
63	AGGCAAAATG GCATCATAAT GAACTATTCA TTAATGATCC AGATGCATAC TATCAAGGCG	240
64		
65	ATGTCGATTT GTCGGAAAAA CAAGCCGAAA TTCTAAGCGA ACATTTTAAA AATGAAATTG	300
66		
67	CTTTAACAGA GAAAGACGAC ACAATAATAC GGCGAAAAAA GAGCATTTGGT CGTGAACCAT	360
68		
69	TTTACGTAAG ATGGAATCAT AAACGTCCCA TTAGCTATGA ATTTGCGGAA AGTATTCCAT	420
70		
71	TAGAAACACG TAGAAAAATT CGTTCAGCAA TAGCAATGTG GGAAGAACGA ACATGCATAC	480
72		
73	GATTCCAAGA AAATGGCCCA AATGTAGATC GAATTGAATT TTACGACGGT GGCGGTTGTT	540
74		
75	CAAGTTTTGT CGGCCGAACA GGAGGGAATT TCAATTTCAA CACCAGGATG TGATATTATT	600
76		
77	GGTATTATAT CACATGAAAT TGGTCATACT TTAGGAATAT TTCATGAGCA AGCACGTCGT	660
78		
79	GATCAAAAAA ATCATATTTT TATTAATTAC AACAAATATC CATCAAGCCG TTGGAACAAT	720
80		
81	TTTTTTCCAT TATCAGAATA TGAAGCTGAT ATGTTTAATT TACCTTATGA TACAGGATCA	780
82		
83	GTAATGCACT ATGGTTCATA CGGATTTGCA AGAAATCCGT ATGAACCAAC TATTACAACA	840
84		
85	CGTGATAAAT TTCAACAGTA CACAATTGGG CAACGTGAAG GGCCATCATT TCTGGATTAT	900
86		
87	GCATCTGTTA AGCTTTATCT ACAAACGCAT TAATGATATT GTTATCAAAT GGATGATAAT	960
88		
89	TTCAATAAGT ATAAACAGCG CTTATCGTTG TACAGAACAA TGTGCTGATA TGCACTGCGA	1020
90		
91	TCATAATGGT TATCCGGATC CTAATAATTG CGCGAAATGC TTGTGTCCAG ATGGTTTTGC	1080
92		
93	TGGTCGTACC TGTCAATTTG TTCAATATAC ATCTTGCGGA GCTCTCATTA AGGTAAGTAT	1140
94		
95	TGTCTTTTGA CCTCTTCTCT GACTAAAATA TAAGTTAAGC ATATGTATCT TCCGTCTAAT	1200
96		
97	GATTTTCTTG ATTTTGATTT GTTCAATGCT CTTCTTGATA ATAATATAAA AATTTTGTAA	1260
98		
99	AATAAAGTTA ACTTTTGGTC AAAAAAAAAA AAAAAAAAAA	1299

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/003,574DATE: 02/20/98
TIME: 09:40:45

INPUT SET: S23591.raw

100
101 (2) INFORMATION FOR SEQ ID NO:2:
102
103 (i) SEQUENCE CHARACTERISTICS:
104 (A) LENGTH: 2126 base pairs
105 (B) TYPE: nucleic acid
106 (C) STRANDEDNESS: single
107 (D) TOPOLOGY: linear
108
109 (ii) MOLECULE TYPE: cDNA
110
111
112
113 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
114
115 GAAAGCATCA CGAAATACGT TAGATCACAT CAAACAACCTT ATCACCTTGA ACGTACAAAAG 60
116
117 AGAGATTGGA AACATAGATG ATAAGACATT AGCTGATGAA ATAGTATTAC AACGACGGGA 120
118
119 TCCTGAGGCA AAATGGCATC ATAATGAACT ATTCATTAAT GATCCAGATG CATACTATCA 180
120
121 AGGCGATGTC GATTTGTCGG AAAAACAAGC CGAAATTCTA AGCGAACATT TTAAAAATGA 240
122
123 AATTGCTTTA ACAGAGAAAAG ACGACACAAT AATACGGCGA AAAAAGAGCA TTGGTCGTGA 300
124
125 ACCATTTTAC GTAAGATGGA ATCATAAACG TCCCATTAGC TATGAATTTG CGGAAAGTAT 360
126
127 TCCATTAGAA ACACGTAGAA AAATTCGTTC AGCAATAGCA ATGTGGGAAG AACGAACATG 420
128
129 CATACGATTC CAAGAAAATG GCCCAAATGT AGATCGAATT GAATTTTACG ACGGTGGCGG 480
130
131 TTGTTCAAGT TTTGTCGGCC GAACAGGAGG GAATTTCAAT TTCAACACCA GGATGTGATA 540
132
133 TTATTGGTAT TATATCACAT GAAATTGGTC ATACTTTAGG AATATTTTCAT GAGCAAGCAC 600
134
135 GTCGTGATCA AAAAAATCAT ATTTTATTA ATTACAACAA TATTCCATCA AGCCGTTGGA 660
136
137 ACAATTTTTT TCCATTATCA GAATATGAAG CTGATATGTT TAATTTACCT TATGATACAG 720
138
139 GATCAGTAAT GCACTATGGT TCATACGGAT TTGCAAGAAA TCCGTATGAA CCAACTATTA 780
140
141 CAACACGTGA TAAATTTCAA CAGTACACAA TTGGGCAACG TGAAGGGCCA TCATTTCTGG 840
142
143 ATTATGCATC TGATAAACAG CGCTTATCGT TGTACAGAAC AATGTGCTGA TATGCACTGC 900
144
145 GATCATAATG GTTATCCGGA TCCTAATAAT TGCGCGAAAT GCTTGTGTCC AGATGGTTTT 960
146
147 GCTGGTCGTA CCTGTCAATT TGTTC AATAT ACATCTTGCG GAGCTCTCAT TAAGGCGAGG 1020
148
149 AAAATGCCTG TTACGATTTT GAGCCCAAAT TATCCAAACT TCTTCAATGT TGGTGATCAA 1080
150
151 TGTATTTGGT TGCTTACAGC TCCACGCGTG ATTCGTAAAT TTGCAGTTTG TTGAACAATT 1140
152

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/003,574DATE: 02/20/98
TIME: 09:40:49

INPUT SET: S23591.raw

153	TCAATTACAA TGTGAAGATA CGTGTGATAA ATCCTATGTA GAAGTGAAAG CTGACGCTGA	1200
154		
155	TTTTCGACCT ACTGGATATC GATTTTGTG TTGCGGAGTG CCACGTCATA TTTTCAATC	1260
156		
157	TGCGACAAAC GAGATGGTAG TAATATTTTCG CGGTTTTGGT GATGCGGGAA ATGGCTTTAA	1320
158		
159	AGCTAAAATT TGGTCAAACG TAGATGATGA TATAGCTAAT ACAATTGTAA CAACTGAAAT	1380
160		
161	GGCAAAAATT TCGGAAAAAA TACCGAAGCT AACAGTTCCA ATAGTTAAAA CTATTACCAC	1440
162		
163	TCCTACAATA ACAACTACTA CTGCTTTCAT GATATCACCC AAGAAAGGCA ATGTCACCGC	1500
164		
165	CACGAGAGTT GCTATCACTA CTACGCCGAC TACTACAATT ACTACGACTA TTGCCGGTAC	1560
166		
167	GTACCAATCA CCGTAACTAA TAATACTACA CCTGTAGTAA GTGAAACTTT ACCATCATTG	1620
168		
169	CCAGTCAAGA TTCGAAACAA AATAGGTGCA TGCGAATGTG GTGAATGGAC AGAATGGACA	1680
170		
171	GGTCCATGCT CTCAAGAATG TGGCGGTTGC GGAAAACGTC TTCGAACACG TCAGTGTTCA	1740
172		
173	TCAGATACGG AATGTAGAAC AGAAGAAAAA CGTGCGTG TGCTTAAAGTT TGCCCATACG	1800
174		
175	GGACTAATTT CCTTATCAAT AATGGAGAGT TTCATATACT TTGGAAGGGC TGCTGTGTTG	1860
176		
177	GTCTATTCCG ATCGGGAGAT ATGTGTTTCA CACTTGATGA TAACGAGAAT CCATTCTCTGA	1920
178		
179	AATTTCTAGA ATCACTGTTG AACATGCAAG ATTCTCGAAA AAACGATAAT TTGCCTGACT	1980
180		
181	CGAAAAAGAA GTGATTGAAT GATTCGATAA TATTGATTAA TAAAACGGGT TGTATTCTCG	2040
182		
183	TCATAGAGTA TCCGTTGATG TTTTATCCA AAAAAATCTC TTGCTTTTAA TTATTGTGAA	2100
184		
185	TAAAACTTTT GTTTACCCAA AAAAAA	2126
186		

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 191 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Cys	Phe	Ile	Val	Gln	Ser	Val	Glu	Asn	Tyr	Arg	Thr	Gln	Lys	Ala	Ser
1						5				10				15	
Arg	Asn	Thr	Leu	Asp	His	Ile	Lys	Gln	Leu	Ile	Thr	Leu	Asn	Val	Gln
			20					25						30	

RAW SEQUENCE LISTING PATENT APPLICATION US/09/003,574

DATE: 02/20/98
TIME: 09:40:52

INPUT SET: S23591.raw

```

206
207 Arg Glu Ile Gly Asn Ile Asp Asp Lys Thr Leu Ala Asp Glu Ile Val
208           35                      40                      45
209
210 Leu Gln Arg Arg Asp Pro Glu Ala Lys Trp His His Asn Glu Leu Phe
211           50                      55                      60
212
213 Ile Asn Asp Pro Asp Ala Tyr Tyr Gln Gly Asp Val Asp Leu Ser Glu
214           65                      70                      75                      80
215
216 Lys Gln Ala Glu Ile Leu Ser Glu His Phe Lys Asn Glu Ile Ala Leu
217           85                      90                      95
218
219 Thr Glu Lys Asp Asp Thr Ile Ile Arg Arg Lys Lys Ser Ile Gly Arg
220           100                     105                     110
221
222 Glu Pro Phe Tyr Val Arg Trp Asn His Lys Arg Pro Ile Ser Tyr Glu
223           115                     120                     125
224
225 Phe Ala Glu Ser Ile Pro Leu Glu Thr Arg Arg Lys Ile Arg Ser Ala
226           130                     135                     140
227
228 Ile Ala Met Trp Glu Glu Arg Thr Cys Ile Arg Phe Gln Glu Asn Gly
229           145                     150                     155                     160
230
231 Pro Asn Val Asp Arg Ile Glu Phe Tyr Asp Gly Gly Gly Cys Ser Ser
232           165                     170                     175
233
234 Phe Val Gly Arg Thr Gly Gly Asn Phe Asn Phe Asn Thr Arg Met
235           180                     185                     190
236

```

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 141 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

```

251 Ile Glu Leu Asn Phe Thr Thr Val Ala Val Val Gln Val Leu Ser Ala
252 1                      5                      10                      15
253
254 Glu Gln Glu Gly Ile Ser Ile Ser Thr Pro Gly Cys Asp Ile Ile Gly
255           20                      25                      30
256
257 Ile Ile Ser His Glu Ile Gly His Thr Leu Gly Ile Phe His Glu Gln
258           35                      40                      45

```

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/003,574

DATE: 02/20/98
TIME: 09:40:56

INPUT SET: S23591.raw

Line

Error

Original Text